# NEW NEARCTIC SARCOPHAGIDAE AND TACHINIDAE (DIPTERA).<sup>1</sup>

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The following descriptions are offered at this time to make names available for use in other reports on materials borrowed for study and received for identification.

#### Amobia aberrans n. sp.

Male.—Parafrontal with a double row of weak bristles extending to antenna, gray pollinose, wider than frontalia on entire length; vertical bristles two pairs; ocellars hairlike; parafacial bare, subsilvery; vibrissae hardly differentiated, well above oral margin; facialia with minute setae ascending almost to middle; front at vertex 0.25 of head width and equibroad to antenna; latter black, hardly reaching to mid face, subbulbous third segment but slightly longer than second; arista black, bare, thickened on proximal fourth thence slender to tip; proboscis short; palpus brownish black; eye bare, large, extending below vibrissal level; cheek narrow in profile, hardly one-tenth eye height; occiput gray pollinose, sparsely clothed with short black hairs.

Thorax gray pollinose, notum marked with three broad black vittae which extend on scutellum; latter with 2 lateral 1 strong decussate apical and 1 weak discal pair situated well behind middle; prescutellars and hindmost dorsocentral well developed and in a transverse row; two sternopleurals; prosternum, propleuron and postnotal slope bare. Legs black; claws and pulvilli a little shorter than apical tarsal segment. Wing gray hyaline; first posterior cell open well before wing tip; hind cross vein joining fourth about four-fifths distance from small cross vein to cubitulus, latter obtuse without stump or fold; costal spine vestigial; calypter opaque white; epaulet infuscated, subepaulet pale or whitish.

Abdomen rather slender and tapering distally, black with changeable gray pollen on three basal segments disposed in two broad more or less interrupted vittae on either side of dark median line; pollen on basal half of anal segment with a golden tinge at sides; one pair of median marginal bristles on second segment and a marginal row on last two; hypopygium moderately large, retracted, black. Female unknown.

<sup>&</sup>lt;sup>1</sup> Contribution No. 2236, from the Department of Entomology, Texas Agricultural Experiment Station.

Length, 6 mm.

Holotype: "Utah, VI, '27"

The unusually short antennae, reduced vibrissae and wing venation readily distinguish the species from all known related forms. Although the type specimen has been in my collection since 1926, no additional material has come to light.

#### Senotainia opiparis n. sp.

Male.—Front at vertex 0.28 and at antennal base 0.22 of head width (average of four specimens measured); parafrontal vellow to pale golden pollinose, parafacial concolorous on upper part becoming paler below; frontalia reddish, gradually widened upwards and exceeding parafrontal width on upper half; frontal bristles about ten in a single row stopping before base of antennae; verticals two pairs; one reclinate and two proclinate orbital bristles; face strongly divergent downward, its sides narrow, bare; clypeus silvery, moderately depressed; epistoma strongly narrowed from clypeus and bowed forward from plane of same; vibrissae approximated and about length of second antennal segment above oral margin: facialia with one or two bristly hairs above vibrissae: antenna wholly golden, reaching to lower fourth of face, third segment three to four times length of second; arista bare, black, hardly equal to combined length of last two antennal segments, thickened and rather sharply tapered on basal third; cheek narrow in profile about one-twelfth eye height; eye large, reaching well below vibrissal level; proboscis rather slender but shorter than head height; palpus slender, pale yellow, with a few short black hairs on lower edge; back of head flattened, gray pollinose on dark background, sparsely clothed with short black hairs.

Thorax and scutellum black, gray pollinose, dorsal vittae poorly defined; two hindmost dorsocentrals and prescutellars well developed; sternopleurals normally two and two lateral scutellars besides an equally strong apical decussate pair; prosternum, propleuron and postnotal slope bare. Legs black; claws and pulvilli equal to or longer than last tarsal segment; hind tibia with a row of subequal bristles on outer posterior edge extending to slightly beyond middle. Wing hyaline; third vein with one or two small hairs near base; costal spine vestigial; epaulet black; calypter whitish.

Abdomen largely reddish in ground color, with pale or whitish pollen on last three segments which in a flat rear view extends thinly to hind margin on each; a dark median vitta usually apparent; third and fourth segments each with a marginal row of short but

well differentiated bristles; genitalia shining blackish; forceps short, but quite slender, divided almost to base and prongs slightly divergent; accessory process nearly as broad as long and convex on outer side with apex broadly rounded; fifth sternite lobes rather broadly exposed apically, sparsely fine-haired on inner margin.

Female.—Vertex 0.28 of head width, slightly narrower at antennal base; claws and pulvilli shorter than apical tarsal segment; genital segments black, small and retracted within tip of abdomen.

Length, 5.5-8 mm.

Holotype male and allotype female, College Station, Texas, May 14, 1929 (H. J. Reinhard). Paratypes: 27 males, 11 females, same locality as type, April 18 to October 1, 1917–51; 1 male and 1 female, Dilley, Texas, May 5 and 6, 1920, (H. J. Reinhard); 1 female, Bexar County, Texas, September 26, 1931 (H. J. Reinhard); 1 female, Austin, Texas, May 16, 1948; 1 male, Mission, Texas, May 14, 1946 and 1 female, Starr County, Texas, July 4, 1946 (F. A. Cowan); 1 male, Palacios, Texas, May 1, 1929; 1 male, Sherman, Texas, September 21, 1938; 1 male, A. & M. College, Mississippi, August 31, 1922 (H. W. Allen); 1 male, Arlington, Georgia, June 11, 1947 (P. W. Fattig); 1 female, Lima, Ohio, July, 1926 (D. G. Hall).

The species averages smaller in build than *flavicornis*, to which it is closely allied. In the latter species the male genital forceps are much more elongated and the accessory process tapers outward to an acute forward bowed tip; also, the sides of the front and face are gray to silvery pollinose.

### Senotainia sinopis n. sp.

Differs from the preceding species mainly as follows:

Male.—Head gray pollinose on dark background; front at vertex 0.29 of head width and narrowed to 0.25 of same at antennal base; frontalia sublinear on anterior half and exceeding parafrontal before ocelli; third antennal segment two and one-half to three times longer than second; frontal rows separated by less than parafrontal width on anterior half; arista thickened about to middle; cheek sublinear in profile; claws and pulvilli small or shorter than apical tarsal segment; genital forceps a little longer and not so deeply divided as in *opiparis*, the base behind more prominent in profile, slender prongs hardly at all divergent as viewed from behind; accessory process over twice as long as wide at base, tapering distally to an acute tip; fifth sternite lobes small or narrowly exposed.

Female.—Front at vertex 0.32 of head width and nearly equi-

broad forward to antennal base; parafrontal with a faint but apparent vellow tinge; frontal bristles weaker than in male; claws and pulvilli minute; anal orifice slit-like, genitalia retracted.

Length, 6-7 mm.

Holotype male and allotype female, College Station, Texas, May 11, 1917 (H. J. Reinhard). Paratypes: 5 males and 1 female, same locality as type, May 11 to July 4, 1917-1929 (H. J. Reinhard).

#### Senotainia invoensis n. sp.

Similar to *opiparis* except as follows:

Male.—Head pollen silvery white at most with a faint yellow tinge on upper half of front; vertex distinctly wider or 0.35 of head width (one specimen); antenna reaching almost to level of vibrissae, third segment nearly five times longer than second; arista thickened on basal three-fifths or more; cheek narrow in profile about one-tenth eye height. Thorax with dense pale cinereous pollen, with a slight greenish yellow tint on notum; latter with four narrow vittae, moderately defined before suture but barely visible behind. Abdomen wholly red in ground color, with rather sharply defined silvery fascia on basal half or more of last three segments; genital forceps moderately stout, deeply divided but not divergent toward tip; accessory process as long as forceps and in profile much wider than same, tapering to a small acute anteriorly bowed tip; fifth sternite lobes largely retracted or concealed.

Female.—Vertex 0.33 of head width, front slightly narrower at antennal base; antenna reaching to lower fourth of face, third segment three to four times length of second; claws and pulvilli shorter than last tarsal segment; anal orifice slitlike, genitalia retracted and largely concealed within tip of abdomen.

Length, 5.5-7 mm.

Holotype male and allotype female, (in Calif. Acad. Sci., Ent.) Deep Springs Lake, Invo Co. Calif., July 7, 1953 (J. W. Mac-Swain). Paratypes: 12 females, same data as type; 1 female, "Phoenix, Ariz. Aug. D. K. Duncan"; 1 female, Santa Catalina Mts. Arizona, August 15, 1924 (A. A. Nichol); 2 females, Artois, Glenn Co., Calif., July 11, 1952 (H. L. Hansen); 1 female, Dugway Pr. Gd. Toole Co. Utah, July 9, 1953 (J. L. Eastin).

# Spathidexia creolensis n. sp.

Female.—Differs from all known species in having the abdomen mostly red in ground color; head subsilvery pollinose; parafrontal sparsely clothed with pale short hairs, much wider than frontal

vitta; proclinate ocellars small but distinct; frontals in a single row, one bristle below antennal base; two stout proclinate orbitals and one (inner) vertical; vertex 0.26 of head width, gradually widening downward into facial angle; parafacial bare, strongly narrowed below; antenna subequal length of face, black tinged with red basally, third segment nearly four times length of second; arista black, slender and shorthaired to tip from near base; vibrissae stout, on oral margin; facialia practically bare; proboscis short, labella and palpus pale yellow; cheek narrower than width of third antennal segment; eye large, bare; back of head wholly short pale-haired.

Thorax and scutellum black, gray pollinose, notum not distinctly vittate and clothed with black hairs, pleura with a contrasting vestiture of pale hairs; acrostichal 3, 3 (one immediately before and behind suture small); dorsocentral 3, 3; intraalar 3; supraalar 3; presutural 1 (outer); humeral 4; pteropleural 0; sternopleural 1, 1; scutellum with 3 lateral (intermediate one small), 1 good-sized decussate apical and 1 weaker discal pair; propleuron and postnotal slope bare. Wing gray hyaline; third vein setulose to small cross vein; first posterior cell narowly open shortly before wing tip; costal spine vestigial; epaulets black. Legs black, tibiae more or less reddish, middle pair each with two stoutish bristles on outer front side near middle; claws and pulvilli short.

Abdomen slightly narrower but considerably longer than thorax, shining red, with a silvery pollen band on narrow basal edge of segments two to four; no discals; second segment with one pair of large median marginal bristles (broken off in type) and last two each with a marginal row; genitalia terminating in a flattened blunt-tipped larvipositor; sternites covered. Male unknown.

Length, 7.5–8 mm.

Holotype female, Miami, Florida, October 28, (C. H. T. Townsend) in the U. S. National Museum. Paratypes: 2 females, Creole, Louisiana, June 7, 1951 (Price, Beamer, Wood) in the Snow Entomological Collection, University of Kansas.

# Pseudapinops rogalis n. sp.

A polished black species like the genotype, *P. migra* Coq., from which it is at once distinguished in having the legs bicolored.

Female.—Parafrontal shiny black destitute of pollen, and distinctly narrower than red frontalia; short, weak frontal bristles in a single row extending slightly below antennal base; ocellars, two orbitals and verticals present but weak; front at vertex 0.32 of head width gradually diverging forward into facial angle; parafacial

subsilvery, bare and moderately narrowed below; vibrissae rather short, on oral margin; facialia setose on lower fourth; antenna reddish third segment largely infuscated, exceeding twice length of second; short arista black, bare, thickened to middle, basal segments small; cheek two-fifths eve height, shiny black but with a pruinose sheen apparent in some views, groove red in ground color; proboscis short, palpus absent; eye bare; posterior orbit silvery; occiput convex, shiny black and sparsely black-haired.

Thorax and scutellum polished black, weakly bristled; three sternopleurals and post dorsocentrals; prosternum, propleuron and postnotal slope bare. Legs rather stoutish, tibiae and tarsi black remainder sharply contrasting vellow; bristling considerably reduced or weak. Wing subhyaline, with a light brownish tint along costal margin; first posterior cell narrowly open a trifle before extreme wing tip; hind cross vein nearer small cross vein than cubitulus; latter without stump or fold; third vein with 2 or 3 small hairs near base; costal spine minute; epaulet and subepaulet black; calypter transparent, pale tawny.

Abdomen ovate, shining black, without any dorsal macrochaetae, marginal bristles on three basal segments hardly differentiated from hairs but somewhat stronger or bristly on anal segment which also bears longer but appressed hairs on upper surface; genitalia retracted within tip of abdomen.

Length, 5 mm. Male unknown.

Holotype: Marion Mt. Cmp., San Jacinto Mts., Calif., July 1, 1952 (E. M. Evans).

# ON THE REAPPEARANCE OF A POSSIBLE ANCES-TRAL CHARACTERISTIC IN A MODERN CHILOPOD (CHILOPODA: SCOLOPENDROMORPHA: CRYPTOPIDAE).

By Ralph E. Crabill, Jr., Saint Louis, Missouri

It is not unreasonable to assume that the remote ancestors of the modern pleurostigmophorous centipedes bore a pair of laterallydisposed spiracles (stigmata) on each pedal somite and that in the course of their long evolution, depending upon the group, certain of these pairs of spiracles have been lost. This could account for the variability that we encounter in the number of spiraclebearing somites of modern centipedes. In the order Geophilomorpha each pedal somite, except the first and the last usually,2 bears a

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<sup>&</sup>lt;sup>2</sup> The only known exception is the Fijian genus Azygethus whose members reputedly have ultimate pedal spiracles.